REMARKS

These remarks are set forth in response to the office action mailed October 23, 2003 (the "Office Action"). As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Claims 1 through 23 are presently pending in the Patent Application. In the Office Action, claims 18-20, 22 and 23 have been rejected under 35 U.S.C. §102(e). Claims 1-5, 6-17 and 21 were rejected under 35 U.S.C. §103(a).

I. Rejection under 35 U.S.C. §102(e)

In the Office Action, claims 18-20, 22 and 23 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,091,954 to Haartsen et al. ("Haartsen"). However, Applicant believes the Examiner may have misunderstood the teachings of Haartsen in making the foregoing rejection. Accordingly, it is believed that a brief review of that Haartsen reference may be helpful for assisting the Examiner in recognizing the differences between that invention and the invention recited in Applicant's claims.

Haartsen is directed to the problem of RF frequency re-use and RF frequency channel assignments among a group of mobile subscriber units which may offer differing performance characteristics. It is desirable in cellular communications systems to reuse identical RF carrier frequencies in different cells so as to take maximum advantage of available frequency spectrum assignments. However, Haartsen explains that older technology mobile subscriber units may not permit the most advantageous frequency reuse plan among a group of cells. Haartsen proposes to solve this problem by implementing a system that concurrently makes use of more than one frequency reuse plan within a geographic area. Haartsen discloses that this can be accomplished in one of two ways.

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One approach suggested by Haartsen is to provide two or more base stations covering a particular geographic area, wherein each base station is associated with a different frequency re-use plan and each base station is comprised of a different set of hardware. In this way, one base station can be designed specifically for operating with each different type of mobile subscriber unit. The frequency channels allocated to the geographic area are then divided between the base stations. The network selects the proper base station for communicating with each mobile subscriber as it initiates a call. See col. 4, lines 51-65. In each case, one of the pre-allocated RF carrier frequencies assigned to the particular base station is assigned as the frequency over which the base station will communicate with the mobile subscriber. Notably, each base station has a fixed set of carrier frequencies or "channels" on which it operates. Haartsen does not specifically explain the architecture of the hardware that is used to accomplish this result. However, in conventional narrowband systems, a plurality of narrowband transceivers are commonly used for this purpose (i.e. one for each active RF carrier channel). In such conventional narrow-band systems, each transceiver assigned to one of the carrier frequency channels allocated to the base station, and each transceiver makes use of dedicated digital signal processing hardware.

Haartsen also suggests an alternative method for achieving the foregoing result in which only one base station is necessary. See col. 5, lines 55-67. In this embodiment, the single base station can employ two or more transceivers that can share some of the same hardware. Haartsen does not specify which hardware is to be shared. However, Haartsen does indicate that each transceiver will possess characteristics different from the other so that each is designed to support the operation of only certain types of mobile subscriber units. Col. 5, lines 58-64. Moreover, because each transceiver will be associated with a

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different frequency reuse plan, each will have its own set of pre-allocated RF frequencies or "channels" that it can use. Similar to the arrangement described above using multiple base stations, the network can determine which transceiver within the single base station is compatible with the mobile subscriber unit. Once the proper transceiver is identified, one of the RF carrier frequency channels pre-allocated to that particular transceiver is selected for communications between the mobile unit and the transceiver. Col. 6, lines 2-10.

Based upon the foregoing, it will be appreciated that Haartsen teaches the use of two separate transceivers in a single base station, each of which is assigned specific pre-determined or "pre-allocated" carrier frequencies. See col. 5, lines 63-64. Thus, each transceiver in Haartsen is preconfigured for operating only on these pre-allocated RF carrier frequency channels. In other words, these are conventional static transceiver systems. Notably absent from Haartsen is any suggestion of Applicant's claimed step of allocating to a transceiver a plurality of "channel processors," as that term is defined in Applicant's specification. Also absent from Haartsen is any suggestion or disclosure regarding Applicant's step of dynamically assigning a call to any one of the plurality of channel processor resources.

Applicant's invention concerns dynamic allocation of certain types of digital signal processing resources used in broadband base stations. These are referred to in Applicant's specification and claims as "channel processors." In contrast, Haartsen does not disclose broadband base stations, it does not disclose an available pool of digital signal processing resources similar to Applicant's "channel processors", and it does not disclose the step of dynamically assigning a call to any of the available channel processors. Contrary to the Examiner's contention, Haartsen simply contains no disclosure or suggestion that a "channel processor" (as that term is used in Applicant's specification and claims) can be

dynamically allocated, and likewise contains no disclosure that a channel processor can be allocated to any call in a broadband base station.

The Examiner makes reference to col. 7, lines 17-36 and col. 7, line 65 - col 8, line 25 in support of the contention that the limitations in claims 1 and 8 are met by Haartsen. However, Haartsen's reference to a "pool of pre-allocated channels" does not refer to base station or transceiver resources at all, but merely to RF carrier frequencies that are part of a group of frequencies assigned for use by the particular base station in accordance with the frequency re-use plan. Similarly, the Examiner's reference to col. 3, lines 25-53, col. 5, line 55 - col. 6, line 9) concerns pools of RF carrier frequencies assigned to base stations, not allocation of base station resources such as Applicant's channel processors. The same can be said regarding the Examiner's reference to Haartsen at col. 7, lines 1-26. Based upon the foregoing analysis of Haartsen, it should now be apparent that Haartsen does not discuss allocation of channel processor resources at all but rather allocations of RF carrier frequency channels and frequency re-use plans. In fact, Applicant's claimed invention could be used to substantially enhance the invention of Haartsen due to the dynamic allocation of resources to channels in multi-frequency plan implementation as described in Haartsen.

II. Rejection under 35 U.S.C. §103(a)

Claims 1-5, 7-12 and 14-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haartsen in view of U.S. Patent No. 5,970,410 to Carney et al. ("Carney"). Claims 6 and 13 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Haartsen and Carney as applied to claims 1 and 8 above, and further in view of U.S. Patent No. 6,366,779 to Bender et al ("Bender"). Carney does not disclose dynamic allocation of channel processor resources and therefore does not make up for the

deficiencies of Haartsen for the reasons explained above. However, Applicant respectfully submits that Carney in any case cannot preclude patentability of the present invention pursuant to the statutory provisions of 35 U.S.C. §103(c). Specifically, it is believed that Carney qualifies as prior art, if at all, only pursuant to 35 U.S.C. §102(e). Further, Carney and the present application were, at the time the present invention was made, owned by the same person, namely AirNet Communications Corporation. The provisions of 35 U.S.C. §103(c) preclude Carney from being used in combination with other references to form a rejection under 35 U.S.C. §103(a) under these circumstances.

Claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over Haartsen in view of Bender. Applicant respectfully submits that claim 21 is allowable at least by virtue of its dependence upon an allowable base claim.

III. Conclusion

For the foregoing reasons, this entire application is believed to be in condition for allowance. Consequently, such action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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